

40. (New) The apparatus, as recited in claim 3, wherein the magnetic field at the substrate is substantially zero.

41. (New) The apparatus, as recited in claim 1, wherein said magnetic elements are permanent magnets and each magnetic element has a length that extends substantially from the top end to the bottom end of the process chamber.

REMARKS

Claims 1-11 and 28-41 are pending. Claims 9-11 and 39 are withdrawn from consideration.

The applicant would like to thank the Examiner for her time during the telephone discussion of January 10, 2003.

Rejections under 35 U.S.C. § 102

The Examiner rejected claims 1-8, 28-38, and 40-41 under 35 U.S.C. 102(e), as being anticipated by U.S. Patent No. 6,341,574B1 to Bailey et al. A Rule 131 declaration is enclosed, which states facts to show that claims 1-8, 28-38, and 40-41 recite an invention that was invented before the filing date of Bailey et al. As a result, Bailey et al. was not filed before the invention by the applicant, as required by 102(e). In addition, Bailey et al. does not disclose that the device for rotating the magnetic fields is able to rotate each magnetic element individually at the same angular speed and angular direction around an individual axis of rotation passing through each magnetic element, as recited in claims 1 and 28. For at least these reasons, claims 1-8, 28-38, and 40-41, as amended, are not anticipated by Bailey et al.

Rejections under 35 U.S.C. § 103

The Examiner rejected claims 1-4, 6-8, 28-29, 35-38, and 40-41 as being made obvious by U.S. Patent No. 6,196,155 to Setoyama et al. in view of U.S. Patent No. 5,855,725 to Sakai. The Examiner stated that Setoyama et al. is capable of rotating each magnet individually at the same angular speed and angular direction around an individual axis of rotation. The Examiner did not specifically point out anything in Setoyama et al. that is able to rotate each magnet individually at the same angular speed and angular direction around an individual axis of rotation passing through the magnetic element to change the cusp pattern as recited in claim 1 and 28. Figures 1-3 in Setoyama and discussed by the

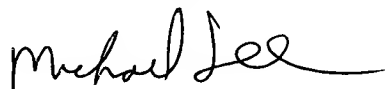
Examiner in paper 11 do not move the magnet elements individually, but as groups of magnetic elements. Each magnetic element is not rotated around an axis of rotation passing through the magnetic element. For example, in Figure 2 of Setoyama an axis of rotation is shown. All of the magnets are rotated around the axis of rotation. The magnets are not rotated around individual axes of rotation, where each axis of rotation for a magnet passes through the magnet as recited in claims 1 and 28. For at least these reasons, claims 1 and 28 are not made obvious by Setoyama et al. in view of Sakai.

The Examiner rejected claims 5 and 30-34 as being made obvious by Setoyama et al. in view of Sakai as applied to claims 1-4, 6-8, 28-29, and 35-36 and in further view of U.S. Patent No. 5,660,744 to Sekine et al., WO 99/27758 to Barankova et al., or U.S. Patent 6,341,574B1 to Bailey et al. Claims 5 and 30-34 are ultimately dependent on claims 1 and 28. For at least this reason, claims 5 and 30-34 are not made obvious by Setoyama et al. in view of Sakai and further in view of Sekine et al., Barankova et al., or Bailey et al.

Claims 2-8, 29-38, and 40-41 are ultimately dependent on claims 1 or 28, and are therefore respectfully submitted to be patentable over the art of record for at least the reasons set forth above with respect to claims 1 and 28. Additionally, these dependent claims require additional elements that, when taken in the context of the claimed invention, further patentably distinguish the art of record. For example, claim 8 recites that the axis of rotation for each magnetic element extends along the length of the magnetic element. For at least these reasons, claims 2-8, 29-38, and 40-41 are not disclosed or made obvious by the cited references.

Applicant believes that all pending claims are allowable and respectfully requests a Notice of Allowance for this application from the Examiner. Should the Examiner believe that a telephone conference would expedite the prosecution of this application, the undersigned can be reached at the telephone number set out below.

Respectfully submitted,
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